



Brucella Agar | AS-1155

For cultivating *Brucella* organisms.

Brucella Agar Base offers a medium that supports not only *Brucella* species but also other fastidious bacteria such as *Haemophilus influenzae*, *Streptococci*, *Pneumococci*, *Listeria*, and *Neisseria meningitides*. Peptones and yeast extract provides vital nutrients, organic nitrogen and B-complex vitamins. Moreover, glucose provides energy source, and sodium chloride preserves the ideal osmotic equilibrium. Horse blood that has been sterilely defibrinated can be added for enrichment to promote growth even further.

It is possible to add antibiotic additives to the base medium to isolate *Brucella* selectively. Moreover, it is possible to differentiate between distinct strains of *Brucella* by taking advantage of their differing dye sensitivity, such as thionine and fuchsin. These dyes can be added to Brucella Agar to create customized culture media and differentiating *Brucella* according to their distinct responses.

Composition (gr/L)

Pancreatic Digest of Casein	10
Peptone from Meat	10
Yeast Extract	2
Glucose	1
Sodium Chloride	5
Agar	14
Final pH at 25°C	7.0 ± 0.2

Preparation

Dissolve 21 g of the powder into 500 ml distilled water. Autoclave at 121 °C for 15 minutes.

For the Brucella differential agar, adjust the pH to 6.7 ± 0.1, sterilize the Brucella agar, and cool the mixture to 50°C. Add 1 milliliter of a 2% basic fuchsin solution, or make a 2% solution by boiling thionine acetate for 20 minutes.

For preparing Brucella selective agar, Sterilize the medium, allow it to cool to 50°C, and then add 250 mg of Bacitracin, 0.5 mg of Polymyxin B sulfate, 50 mg of Cycloheximide, and 0.61 mg of Ethyl Violet to each 500 ml of the medium.

In order to isolate *Campylobacter* species, cool the media to 50°C and add 5-7% sterile defibrinated sheep blood to a sterile, filtered solution containing 125 mg sodium pyruvate, 125 mg sodium metabisulfite, and 125 mg ferrous sulfate in 2 ml of distilled water. In addition, mix 500 ml of the medium base with 25 ml of heat-inactivated horse serum.

Quality Control

Dehydrated Appearance: Fine, homogeneous, free of extraneous material.

Prepared Appearance: Light to medium, tan to yellow, clear to slightly hazy.

Reaction of 4.2% Solution at 25°C: pH 7.0 ± 0.2



Microbial Test Results

Prepare the medium plain and with 5% defibrinated blood. After Inoculation, incubate at 35 ± 2°C for 3 days with 3-5% CO₂ (incubate *S. aureus* without CO₂).

Organism (ATCC)	Recovery Plain	Recovery with Blood
<i>Brucella abortus</i> (11192)	Good	Good
<i>Brucella melitensis</i> (4309)	Good	N/A
<i>Brucella suis</i> (4314)	Good	N/A
<i>Staphylococcus aureus</i> (25923)	Good	N/A
<i>Streptococcus pneumoniae</i> (6305)	N/A	Good
<i>Streptococcus pyogenes</i> (19615)	N/A	Good

Storage

Keep the container at 15-30 °C and prepared medium at 2-8 °C.